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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/736,143	10/28/1996	THOMAS APPLE	03294.0027-0	3553

7590 08/27/2002

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ART UNIT	PAPER NUMBER
2672	

DATE MAILED: 08/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 27

Application Number: 08/736,143
Filing Date: October 28, 1996
Appellant(s): APPLE ET AL.
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For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 6/7/2002.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 1-38 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,270,922	HIGGINS	12-1993
5,761,689	RAYSON et al	6-1998
5,523,769	LAUER et al	6-1996
5,339,392	RISBERG et al	8-1994

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims: The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-3, 6-13, and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over HIGGINS, U.S. Patent Number 5,270,922 in view of LAUER et al., U.S. Patent Number 5,523,769, and further in view of RAYSON et al, U.S. Patent number 5,761,689. Claims 32-33

and 35-36 are rejected under 35 U.S.C. 102(b0 as being anticipated by U.S. patent number 5,270,922. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over HIGGINS, U.S. Patent Number 5,270,922 in view of RAYSON et al, U.S. Patent Number 5,761,689, and further in view of LAUER et al, U.S. Patent Number 5,523,769. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over HIGGINS, U.S. Patent Number 5,270,922 in view of RAYSON et al, U.S. Patent Number 5,761,689, and further in view of LAUER et al, U.S. Patent Number 5,523,769, and still further in view of RISBERG et al, U.S. Patent Number 5,339,392.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 1-3, 6-13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over HIGGINS, US Patent No. 5,270,922 in view of Lauer et al, US Patent No. 5,523,769.

Consider claim 1. HIGGINS discloses, "[A] data processing and communication system [that] distributes and displays financial market ticker, quotation, news and ancilliary information..." (see figure 1a, elements; 28, 30 and 35, figure 2, abstract, lines 1-3, column 1, lines 60-63); comprising the means of an input port to receive a feed containing identifiers and corresponding values of financial instruments (figure 1a, elements, 28, 30(l) to 30(n), and 35, column 2, lines 42-57); the means of a filter to extract from the feed identifiers and corresponding values of the financial instruments (figures 3-4, abstract, lines 8-12, column 1, lines 42-45); the means of an input processor comprising a memory to store the extracted financial instrument identifiers and corresponding values of the financial instruments (column 3, lines 14-18, column 3, line 60-65); the means of an input processor comprising a memory to store the extracted financial instrument identifiers and corresponding values (column 3, lines 14-18, column 3, line 60-65); the means of a database that stores graphic symbols, (fonts are graphic symbols) that represent entities whose financial instruments are identified by the instrument identifiers in the feed and that can be accessed by financial instrument identifiers to provide graphic symbols corresponding to the financial instrument identifiers in the feed (figure 3, abstract, lines 8-12, column 6, line 16 to column 7, line 28, and column 9, lines 25-29); a display controller for forming display signals with the graphic symbols and values corresponding to the financial instruments in the feed (column 2, lines 15-18, and column 4, lines 30-49); however, does not expressly teach a video wall including a plurality of individual monitors arranged into a composite display, and with the display controller receiving the display signals to render the graphic symbols and values corresponding to the financial instruments in the feed on the individual monitors. Lauer et al disclose the above limitation (figures 1a, 1b, 3-6, column 3,

lines 57-67, column 4, lines 1-67, and column 5, lines 1-22). It would have been obvious to one skilled in the art a t the time of the invention to utilize the seamless wall display means of Lauer et al with the data processing and communication system that distributes and displays the financial market ticker (abstract, lines 1-2) system for HIGGINS because this modification will improve the image display capability of financial and securities data.

Consider claim 2. HIGGINS discloses the system of claim 1 wherein the feed is a stock ticker feed and the financial instruments are stocks traded over an exchange (figure 2, abstract, lines 1-7).

Consider claim 3. HIGGINS discloses the system of claim 2 wherein the values include the current trading price for the stocks (figure 2).

Consider claims 6-8. HIGGINS discloses the system of claim 1, wherein the display controller forms display signals with the graphic symbols and values corresponding to the financial instruments in the feed (column 2, lines 15-18, and column 4, lines 30-49), however, does not disclose the means of a plurality of display processors coupled to the input processor and each provided from a respective one of the plurality of display signals, LAUER et al disclose the means of a plurality of display processors coupled to the input processor and each provided from a respective one of the plurality of display signals (column 3, line 57 to column 5, line 22).

Consider claim 9. The modified HIGGINS discloses the system of claim 1, however, does not disclose the means to display signals fed to the individual monitors to render a different graphic symbol and associated financial data on each of the monitors, LAUER et al disclose the means to display signals fed to the individual monitors to render a different graphic symbol and associated financial data on each of the monitors (column 2, lines 28-52, and column 7, lines 25-52).

Consider claim 10. The twice-modified HIGGINS discloses the means of a stock/financial ticker and ticker feed (figure 1, element 70, figures 2 and 4), and the means of a moving ticker (column 4, line 34 to column 5, line 15), however does not disclose a wall display. LAUER et al disclose the means of a wall display (figure 4).

Consider claim 11. The modified HIGGINS discloses the system of claim 1, however, does not disclose the means where the video wall further includes video wall processors for processing the display signals for display on the monitors. LAUER et al disclose the means where the video wall further includes video wall processors for processing the display signals for display on the monitors (figure 4, column 8, line 48 to column 9, line 17).

Consider claims 12-13. The modified HIGGINS discloses that "...trading information are supplied by the New York Stock Exchange 28 to a ticker plant 35" (column 2, lines 44-47) correspond to a plurality of routing switches coupled between the display controller, however, does not disclose the means for a video wall. LAUER et al disclose the means for a video wall (figure 4, column 8, line 48 to column 9, line 17).

Consider claim 15. HIGGINS disclose a system for displaying financial information comprising: a first input port for receiving a first time feed containing identifiers and corresponding values of financial instruments (figure 1a, elements 28, 30, 30(l) to 30(n), and 35, column 2, lines 42-57); the means of a second input port for receiving a second feed containing financial data (figure 1a, elements 28, 30, 30(l) to 30(n), and 35, column 2, lines 42-57): the means of a filter to extract from the first feed the identifiers and corresponding values of the financial instruments and from the second feed the financial data (column 3, lines 14-18, column 3, lines 60-65); a memory to store the extracted financial instrument identifiers, corresponding values, and financial data (column 3, lines 14-18, column 3, lines 60-65); a data structure associating the extracted financial instrument identifiers with corresponding graphic symbols

being publicly acknowledged identifiers of entities whose financial instruments are identified by the instrument identifiers in the feed (figure 3, abstract, lines 8-12, column 6, line 16 to column 7, line 28, and column 9, lines 25-29); the means of a video processor to produce a first display signal with the graphic symbols and values corresponding to the financial instruments in the feed and a second display signal with the financial data column 2, lines 15-18, and column 4, lines 30-49); however, HIGGINS does not expressly teach a video wall including a plurality of individual monitors arranged into a composite display to receive the firsthand second display signals and display the financial data and the graphic symbols and values corresponding to the financial instruments. LAUER et al teach the means of a video wall including a plurality of individual monitors arranged into a composite display to receive the firsthand second display signals and display the financial data and the graphic symbols and values corresponding to the financial instruments (column 3, line 57 to column 5, line 22). It would have been obvious to one skilled in the art at the time of the invention to utilize the seamless wall display means of Lauer et al with the data processing and communication system that distributes and displays the financial market ticker (abstract, lines 1-2) system for HIGGINS because this modification will improve the image display capability of financial and securities data.

Consider claim 16. HIGGINS discloses the means of a method for dynamically displaying graphic symbols and value information for financial instruments on a display, the method comprising: receiving a feed containing identifiers and corresponding values of financial instruments (figure 1a, elements 28, 30(l) to 30(n), and 35, column 2, lines 42-57); the means of extracting from the feed the identifiers and corresponding values of the financial instruments (figures 3-4, abstract, lines 8-12, column 1, lines 40-45); the means of storing the extracted financial instrument identifiers and corresponding values (column 1, lines 40-45, column 3, lines 14-18, 60-65); the means of using the extracted financial instrument identifiers to find graphic

symbols and values corresponding to the financial instruments in the feed (column 1, lines 40-45, column 3, lines 14-18, 60-65), however, HIGGINS does not disclose the means of a wall display and associated processing. Lauer et al disclose the means video wall including a plurality of individual monitors arranged into a larger display (column 8, line 48 to column 6, line 17). It would have been obvious to one skilled in the art at the time of the invention to utilize the seamless wall display means of Lauer et al with the data processing and communication system that distributes and displays the financial market ticker (abstract, lines 1-2) system for HIGGINS because this modification will improve the image display capability of financial and securities data.

Claims 4-5, 17-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over HIGGINS, US Patent No. 5,270,922 in view of Lauer et al, US Patent No. 5,523,769 and further in view of RAYSON et al, US Patent No. 5,761,689.

Consider claim 4. The modified HIGGINS teaches utilization of stock symbols with financial and securities data (figure 3, element 201), however, does not disclose the use of a company logo. RAYSON et al teach the replacement of a predefined string of characters with other objects, such as bitmap (column 1, lines 54-56), further, "...replacement can also comprise a graphic representation or *virtually* any object that can be displayed" (column 2, lines 25-28), and still further, RAYSON et al teach that the autocorrect function is not limited to replacing text characters with plain or formatted text. A user can also apply the function to replace predefined text or a character string with graphic objects such as pictures or logos (column 9, lines 51-54). Therefore, it would have been obvious *to the skilled artisan at the time of the invention to modify alphabetic identifiers of companies/corporations of the financial ticker display (Abstract, lines 1-2) of HIGGINS, which lacks a graphic picture/logo/object of a company/corporation by replacing*

the text/character string with a bitmapped picture or logo or object as suggested by RAYSON et al because RAYSON et al suggests the following desirable features "...it may often be desirable to replace a predefined string of characters with other objects, such as bitmaps, or spreadsheets-again, without requiring the user to initiate the replacement with a function key or other control key combination" (see column 1, lines 54-58), and also, "In one aspect of the invention, the replacement comprises a plurality of characters. However, the replacement can also comprise a graphic representation of virtually any object that can be displayed" (see column 2, lines 25-28). These features of RAYSON et al would obviously be applicable to modifying the following features of HIGGINS, "Various derivative tasks, such as security "It is an object of the present invention to provide improved user friendly apparatus for communicating, storing, processing and displaying financial market information, news and other original and derivative data (column 1, lines 13-16)". These features. For these reasons, utilizing RAYSON et al's means of replacement of text with a graphic representation of virtually object that can be displayed suggests a shorthand method of telling the computer to display special characters. Therefore, it would have been obvious that the converted shorthand text message would have more displayable information.

Consider claim 5. As to claim 4, HIGGINS disclose the moving financial and market ticker display (figure 2, column 4, lines 34-36, column 5, lines 1-5, column 9, lines 18-22, including company symbols, however, does not disclose logos. RAYSON et al discloses the means of corporate logos (column 9, lines 51-54).

Consider claims 17-20. HIGGINS discloses the means of a system for displaying stock ticker information comprising: a display (figure 1b, element 107); and an electronic device that produces the means of a signal that when fed to the display scrolls market data across the display (abstract, lines 1-2, column 5, lines 6-7), the means of said market data including real-

time textual data associated with financial instruments of entities identified by instrument identifiers in a feed received by the system (column 5, lines 16-47), however, does not disclose company logo juxtaposed with financial information. RAYSON et al teach the replacement of a predefined string of characters with other objects, such as bitmap (column 1, lines 54-56), further, "...replacement can also comprise a graphic representation or *virtually* any object that can be displayed" (column 2, lines 25-28), and still further, RAYSON et al teach that the autocorrect function is not limited to replacing text characters with plain or formatted text. A user can also apply the function to replace predefined text or a character string with graphic objects such as pictures or logos (column 9, lines 51-54). Therefore, it would have been obvious *to the skilled artisan at the time of the invention to modify alphabetic identifiers of companies/corporations of the financial ticker display (Abstract, lines 1-2) of HIGGINS, which lacks a graphic picture/logo/object of a company/corporation by replacing the text/character string with a bitmapped picture or logo or object as suggested by RAYSON et al because RAYSON et al suggests* the following desirable features "...it may often be desirable to replace a predefined string of characters with other objects, such as bitmaps, or spreadsheets-again, without requiring the user to initiate the replacement with a function key or other control key combination" (see column 1, lines 54-58), and also, "In one aspect of the invention, the replacement comprises a plurality of characters. However, the replacement can also comprise a graphic representation of virtually any object that can be displayed" (see column 2, lines 25-28). These features of RAYSON et al would obviously be applicable to modifying the following features of HIGGINS, "Various derivative tasks, such as security "It is an object of the present invention to provide improved user friendly apparatus for communicating, storing, processing and displaying financial market information, news and other original and derivative data (column 1, lines 13-16)". These features. For these reasons, utilizing RAYSON et al's means of

replacement of text with a graphic representation of virtually object that can be displayed suggests a shorthand method of telling the computer to display special characters. Therefore, it would have been obvious that the converted shorthand text message would have more displayable information.

Consider claim 21. The modified HIGGINS discloses the system of claim 18 wherein the source containing financial information is a database of financial data (figures 3-4, abstract, lines 8-12, column 1, lines 41-45).

Consider claim 22. The modified HIGGINS discloses the system of claim 18 wherein the real-time textual data scrolled on the display are updated according top market conditions (column 5, lines 6-36).

Consider claim 23. The modified HIGGINS discloses the system of claim 22 further comprising the means of a filter coupled to a source containing financial data (figures 3-4, abstract, lines 8-12, column 1, lines 41-45), said filter extracting the real-time textual data and placing the real-time textual data in a database (figures 3-4, abstract, lines 8-12, column 1, lines 41-45).

Consider claim 24. The modified HIGGINS discloses the means of a system of claim 17 further comprising a correlator that correlates a bitmap of a company symbol with financial data contained in a database (figures 3-4, abstract, lines 8-12, column 1, lines 41-45), even though the means of a stock symbol is used comprising financial information including real-time data associated with financial instruments of entities identified by instrument identifiers in a feed received by the system contained in a database, HIGGINS does not expressly state correlation of a correlator that correlates a bitmap of a company logo. However, RAYSON et al disclose the means of a (company) logo, wherein, the replacement of a predefined string of characters with other objects, such as bitmap (column 1, lines 54-56), further, "...replacement can also comprise

a graphic representation or *virtually* any object that can be displayed" (column 2, lines 25-28), and still further, RAYSON et al teach that the autocorrect function is not limited to replacing text characters with plain or formatted text. A user can also apply the function to replace predefined text or a character string with graphic objects such as pictures or logos (column 9, lines 51-54).

Therefore, it would have been obvious to the skilled artisan at the time of the invention to modify alphabetic identifiers of companies/corporations of the financial ticker display (Abstract, lines 1-2) of HIGGINS, which lacks a graphic picture/logo/object of a company/corporation by replacing the text/character string with a bitmapped picture or logo or object as suggested by RAYSON et al because RAYSON et al suggests the following desirable features "...it may often be desirable to replace a predefined string of characters with other objects, such as bitmaps, or spreadsheets-again, without requiring the user to initiate the replacement with a function key or other control key combination" (see column 1, lines 54-58), and also, "In one aspect of the invention, the replacement comprises a plurality of characters. However, the replacement can also comprise a graphic representation of virtually any object that can be displayed" (see column 2, lines 25-28). These features of RAYSON et al would obviously be applicable to modifying the following features of HIGGINS, "Various derivative tasks, such as security "It is an object of the present invention to provide improved user friendly apparatus for communicating, storing, processing and displaying financial market information, news and other original and derivative data (column 1, lines 13-16)". These features. For these reasons, utilizing RAYSON et al's means of replacement of text with a graphic representation of virtually object that can be displayed suggests a shorthand method of telling the computer to display special characters. Therefore, it would have been obvious that the converted shorthand text message would have more displayable information.

Consider claim 25. The modified HIGGINS discloses the system of claim 24 wherein the real-time textual data scrolled on the display are updated according to market conditions (column 5, lines 6-47).

Consider claim 26. The modified HIGGINS disclose the system of claim 24 further comprising the means of a filter coupled to a source containing financial data, said filter extracting the financial data and placing the financial data in a database (abstract, lines 8-12, column 1, lines 33-45, and column 11, line 55 to column 12, line 21)..

Consider claim 27. The modified HIGGINS discloses a method for displaying stock ticker information comprises: displaying market data across an electronic monitor (figure 1b, element 107, abstract, lines 1-4), Consider claims 27. HIGGINS discloses the means of a system for displaying stock ticker information comprising: a display (figure 1b, element 107); displaying market data across an electronic monitor (abstract, lines 1-2, column 5, lines 6-7), the means of said market data comprising a company symbol and stock ticker real-time data associated with the company symbol including real-time textual data associated with financial instruments of entities identified by instrument identifiers in a feed received by the system (abstract, lines 1-2, column 1, lines 26- 45, column 5, lines 16-47), however, does not disclose company logo juxtaposed with financial information. RAYSON et al teach the replacement of a predefined string of characters with other objects, such as bitmap (column 1, lines 54-56), further, "...replacement can also comprise a graphic representation or *virtually* any object that can be displayed" (column 2, lines 25-28), and still further, RAYSON et al teach that the autocorrect function is not limited to replacing text characters with plain or formatted text. A user can also apply the function to replace predefined text or a character string with graphic objects such as pictures or logos (column 9, lines 51-54). Therefore, it would have been obvious to the skilled artisan at the time of the invention to modify alphabetic identifiers of companies/corporations of

the financial ticker display (Abstract, lines 1-2) of HIGGINS, which lacks a graphic picture/logo/object of a company/corporation by replacing the text/character string with a bitmapped picture or logo or object as suggested by RAYSON et al because RAYSON et al suggests the following desirable features "...it may often be desirable to replace a predefined string of characters with other objects, such as bitmaps, or spreadsheets-again, without requiring the user to initiate the replacement with a function key or other control key combination" (see column 1, lines 54-58), and also, "In one aspect of the invention, the replacement comprises a plurality of characters. However, the replacement can also comprise a graphic representation of virtually any object that can be displayed" (see column 2, lines 25-28). These features of RAYSON et al would obviously be applicable to modifying the following features of HIGGINS, "Various derivative tasks, such as security "It is an object of the present invention to provide improved user friendly apparatus for communicating, storing, processing and displaying financial market information, news and other original and derivative data (column 1, lines 13-16)". These features. For these reasons, utilizing RAYSON et al's means of replacement of text with a graphic representation of virtually object that can be displayed suggests a shorthand method of telling the computer to display special characters. Therefore, it would have been obvious that the converted shorthand text message would have more displayable information.

Consider claim 28. The modified HIGGINS discloses the method of claim 27 wherein displaying associates a data source containing financial information (abstract, lines 1-2) and even though the modified HIGGINS utilizes a stock/company symbol associated with the financial data source, does not expressly state the means of a data source that contains bit map data corresponding to the company logo. However, RAYSON et al disclose the above limitation, wherein, the autocorrect function is not limited to replacing text characters with plain or formatted text. A user can also apply the function to replace predefined text or a character string with

graphic objects such as pictures or logos (column 9, lines 51-54). Therefore, it would have been obvious to the skilled artisan at the time of the invention to modify alphabetic identifiers of companies/corporations of the financial ticker display (Abstract, lines 1-2) of HIGGINS, which lacks a graphic picture/logo/object of a company/corporation by replacing the text/character string with a bitmapped picture or logo or object as suggested by RAYSON et al because RAYSON et al suggests the following desirable features "...it may often be desirable to replace a predefined string of characters with other objects, such as bitmaps, or spreadsheets-again, without requiring the user to initiate the replacement with a function key or other control key combination" (see column 1, lines 54-58), and also, "In one aspect of the invention, the replacement comprises a plurality of characters. However, the replacement can also comprise a graphic representation of virtually any object that can be displayed" (see column 2, lines 25-28). These features of RAYSON et al would obviously be applicable to modifying the following features of HIGGINS, "Various derivative tasks, such as security "It is an object of the present invention to provide improved user friendly apparatus for communicating, storing, processing and displaying financial market information, news and other original and derivative data (column 1, lines 13-16)". These features. For these reasons, utilizing RAYSON et al's means of replacement of text with a graphic representation of virtually object that can be displayed suggests a shorthand method of telling the computer to display special characters. Therefore, it would have been obvious that the converted shorthand text message would have more displayable information.

Consider claim 29. The modified HIGGINS discloses the method of claim 28, however, does not disclose financial information including company identifiers are used to access bitmaps corresponding to the company logos. However, RAYSON et al disclose the above limitation, wherein, the autocorrect function is not limited to replacing text characters with plain or

formatted text. A user can also apply the function to replace predefined text or a character string with graphic objects such as pictures or logos (column 9, lines 51-54). Therefore, it would have been obvious to the skilled artisan at the time of the invention to modify alphabetic identifiers of companies/corporations of the financial ticker display (Abstract, lines 1-2) of HIGGINS, which lacks a graphic picture/logo/object of a company/corporation by replacing the text/character string with a bitmapped picture or logo or object as suggested by RAYSON et al because RAYSON et al suggests the following desirable features "...it may often be desirable to replace a predefined string of characters with other objects, such as bitmaps, or spreadsheets-again, without requiring the user to initiate the replacement with a function key or other control key combination" (see column 1, lines 54-58), and also, "In one aspect of the invention, the replacement comprises a plurality of characters. However, the replacement can also comprise a graphic representation of virtually any object that can be displayed" (see column 2, lines 25-28). These features of RAYSON et al would obviously be applicable to modifying the following features of HIGGINS, "Various derivative tasks, such as security "It is an object of the present invention to provide improved user friendly apparatus for communicating, storing, processing and displaying financial market information, news and other original and derivative data (column 1, lines 13-16)". These features. For these reasons, utilizing RAYSON et al's means of replacement of text with a graphic representation of virtually object that can be displayed suggests a shorthand method of telling the computer to display special characters. Therefore, it would have been obvious that the converted shorthand text message would have more displayable information.

Consider claim 30. The modified HIGGINS discloses the method of claim 27 wherein displaying market data occurs with market conditions (figures 3-4, abstract, lines 1-2, column 1, lines 9-11).

Consider claim 31. The modified HIGGINS discloses the method of claim 27 further comprising filtering the source containing financial data (figures 3-4, abstract, lines 1-12, column 1, lines 41-45, and extracting the data to place the data in a database (figures 3-4).

Consider claim 37. The modified HIGGINS discloses the system of claim 17 wherein the market data corresponds to trades in financial instruments (abstract, lines 1-12) and even though stock symbols are associated with financial information corresponding to a market price for the financial instrument, the modified HIGGINS does not disclose the company logo associated with financial information corresponding to a market price for the financial instrument. However, RAYSON et al teach the means of a function replacing predefined text or a character string with graphic objects such a s pictures or logos (column 9, lines 51-54).

Consider claim 38. The modified HIGGINS discloses the method of claim 27 wherein the stock information comprises trades of financial instruments (abstract, lines 1-12, column 3, line 24-36).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 32-33 and 35-36 are rejected under 35 U.S.C. 102(b) as being anticipated by HIGGINS, US Patent No. 5,270,922.

Consider claim 32. HIGGINS discloses a method for displaying stock ticker information comprises: extracting from a data feed having values of financial instruments, instrument

identifiers and the values of the financial instruments (abstract, lines 1-12, column 1, lines 33-45); accessing graphic symbols, (fonts are graphic symbols), in accordance with the extracted instrument identifiers (figures 3-4, abstract, lines 1-12, column 1, lines 41-54); associating the graphic symbols, (fonts are graphic symbols), with the corresponding values of the financial instruments to produce a financial instrument ticker (abstract, lines 1-12); and displaying the financial instrument ticker, as a moving financial instrument ticker of graphic symbols juxtaposed with corresponding by using the identifiers to associate the graphic symbols with the financial data (column 5, lines 6-36).

Consider claim 33. HIGGINS discloses the method of claim 32 wherein the data feed of values includes identifiers that correspond to the financial instruments (column 5, lines 6-36, and wherein accessing comprises: accessing the graphic symbols, (fonts are graphic symbols), by using the identifiers to associate the graphic symbols with the financial data (column 5, lines 6-36).

Consider claim 35. HIGGINS discloses the method of claim 32 further comprising updating data on the financial instrument ticker in accordance with current market conditions (Column 5, lines 6-47).

Consider claim 36 A method for dynamically displaying graphic symbols and value information for financial instruments (see column 1, lines 13-16), the method comprising: receiving a feed containing identifiers and corresponding values of the financial instruments (figure 1a, elements 28, 30, 30(l) to 30(n), and 35, and column 2, lies 42-57); extracting from the feed the identifiers and corresponding values of financial instruments (column 3, lines 14-18 and 60-65); extracting from the feed the identifiers and corresponding values of the financial instruments (column 3, lines 14-18 and 60-65); retrieving graphic symbols, (fonts are graphic symbols), associated with the extracted identifiers (figure 3, Abstract, lines 8-12, column 5, line

16 to column 7, line 28, and column 9, lines 25-29); forming a display signal including the retrieved graphic symbols and values corresponding to the financial instruments (Abstract, lines 1-4, figure 2b, element 107, figure 2 and figure 4, element 332); symbols and values corresponding to the financial instruments (figure 2, column 6, lines 1-15); and displaying on a monitor the graphic symbols, (fonts are graphic symbols - see figure 2, column 6, lines 1-15), juxtaposed with values corresponding to the financial instruments (figure 2, and column 9, lines 25-29).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over HIGGINS, US Patent No. 5,270,922 in view of RAYSON et al, US Patent No. 5,761,689.

Consider claim 34. The modified HIGGINS discloses the method of claim 32 wherein displaying associates a data source containing financial information (abstract, lines 1-2) and even though the modified HIGGINS utilizes a stock/company symbol associated with the financial data source, does not expressly state the means of a data source that contains bit map data corresponding to the company logo. However, RAYSON et al disclose the above limitation, wherein, the autocorrect function is not limited to replacing text characters with plain or formatted

text. A user can also apply the function to replace predefined text or a character string with graphic objects such as pictures or logos (column 9, lines 51-54). Therefore, it would have been obvious to the skilled artisan at the time of the invention to modify alphabetic identifiers of companies/corporations of the financial ticker display (Abstract, lines 1-2) of HIGGINS, which lacks a graphic picture/logo/object of a company/corporation by replacing the text/character string with a bitmapped picture or logo or object as suggested by RAYSON et al because RAYSON et al suggests the following desirable features "...it may often be desirable to replace a predefined string of characters with other objects, such as bitmaps, or spreadsheets-again, without requiring the user to initiate the replacement with a function key or other control key combination" (see column 1, lines 54-58), and also, "In one aspect of the invention, the replacement comprises a plurality of characters. However, the replacement can also comprise a graphic representation of virtually any object that can be displayed" (see column 2, lines 25-28). These features of RAYSON et al would obviously be applicable to modifying the following features of HIGGINS, "Various derivative tasks, such as security "It is an object of the present invention to provide improved user friendly apparatus for communicating, storing, processing and displaying financial market information, news and other original and derivative data (column 1, lines 13-16)". These features. For these reasons, utilizing RAYSON et al's means of replacement of text with a graphic representation of virtually object that can be displayed suggests a shorthand method of telling the computer to display special characters. Therefore, it would have been obvious that the converted shorthand text message would have more displayable information.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over HIGGINS, US Patent No. 5,270,922 in view of RAYSON et al, US Patent No. 5,761,689 and further in view of

Lauer et al, US Patent No. 5,523,769 and still further in view of RISBERG et al, US Patent No. 5,339,392.

Consider claim 14. The modified HIGGINS meets limitations of claim 1, however does not disclose a means of voice designation. However, RISBERG et al disclose the means of voice designation (abstract, lines 11-15, column 2, lines 15-25). It would have been obvious to one skilled in the art to utilize the alarm and voice designation means of RISBERG et al with the modified data processing and communication system that distributes and displays the financial market ticker (abstract, lines 1-2) system for HIGGINS because this modification allows for increased data input options by users other than touch screen or keyboard (column 2, lines 22-24).

(11) Response to Argument

Appellant's arguments for claims 1-31 and 37-38 are as follows:

I. A. Graphic symbols and graphic logos are not taught by any of the cited prior art.

B. The instant application is non-0obvious over the prior art and conventional art.

C. The rejection utilizes hindsight.

Appellant asserts the following issues: The Examiner disagrees with the appellant's allegation that the references of (HIGGINS and LAUER et al, and HIGGINS in view of LAUER et al, and further in view of RAYSON et Al) in claims 1-31, and 37-38 are patentable where Appelleant's invention represents a classic reversal of long standing conventional practice and wisdom and that HIGGINS, the primary reference in combination with other references to reject the claims, merely disclose the conventional approach and none of the secondary references supply the missing teachings.
In response to appellant's arguments stating that said prior art merely discloses the conventional approach and none of the secondary references supply the missing teachings, wherein "... HIGGINS

is actually devoid of any teachings of graphic symbols in combination with financial values. In fact the word "graphic" is not mentioned once in HIGGINS, nor does HIGGINS teach any equivalent to a graphic symbol that represents an entity whose security is identified by identifiers in a feed. Instead HIGGINS simply teaches the conventional alphabetic abbreviation stock ticker symbol."

A. Examiner agrees with Appellant that the word "graphic" was not mentioned in HIGGINS. However, Examiner disagrees that HIGGINS is devoid of any equivalent to a graphic symbol. Appellant's recited claim language broadly reads on graphic symbols/logos, such that, there is no exclusionary claim language, regarding the alphabetic/alphanumeric symbols, graphic representations may be substantially similar to representations of said alphabetic/alphanumeric symbols. Examiner maintains that HIGGINS' teachings of "stock symbols" (which are alphabetic characterizations), clearly illustrates graphic representations. Further, Merriam-Webster's collegiate dictionary – 10th" edition, page 192, section 1b, defines "character" as: a graphic symbol (as a hieroglyph or alphabet letter) used in writing or printing. The aforementioned definition suggests that characters and symbols are functionally equivalent. Still further, the addition of RAYSON et al with HIGGINS, consisting of a bitmapped picture or logo that replaces a character string, further suggests functional equivalence between pictures or logos with symbols, alphabetic/alphanumeric characterizations and characters. Therefore, it is well known in the art that any given character, symbol, and graphic may be substantially similar.

B. Examiner disagrees with Appellant's assertion that the rejection fails to meet obviousness criteria. In response to Appellant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F. 2d. 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F. 2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the functional

equivalence among alphabetic/alphanumeric abbreviations/symbols and graphic characters/symbols has been established by the following argument; Examiner disagrees that HIGGINS is devoid of any equivalent to a graphic symbol. Appellant's recited claim language broadly reads on graphic symbols/logos, such that, there is no exclusionary claim language, regarding the alphabetic/alphanumeric symbols, graphic representations may be substantially similar to representations of said alphabetic/alphanumeric symbols. Examiner maintains that HIGGINS' teachings of "stock symbols" (which are alphabetic characterizations), clearly illustrates graphic representations. Further, Merriam-Webster's collegiate dictionary – 10th" edition, page 192, section 1b, defines "character" as: a graphic symbol (as a hieroglyph or alphabet letter) used in writing or printing. The aforementioned definition suggests that characters and symbols are functionally equivalent. Still further, the addition of RAYSON et al with HIGGINS, consisting of a bitmapped picture or logo that replaces a character string, further suggests functional equivalence between pictures or logos with symbols, alphabetic/alphanumeric characterizations and characters. Therefore, RAYSON et al provides both suggestion and motivation to combine the references.

C. Examiner disagrees with Appellant's interpretation that hindsight reconstruction was utilized to reject recited claim language. In response to appellant's argument that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge that was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See In re *Mclaughlin,* 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). For example, see column 2, lines 25-28, "In one aspect of the invention, the replacement comprises a plurality of characters. However, the replacement can also comprise a graphic representation or virtually any object that can be displayed".

Appellant's arguments for claims 18-26, 28-29 and 34 are as follows:

II. The instant application is 0bvious over the prior art and conventional art and that there is no suggestion to combine the references for claims 18-26, 28-29 and 34.

The examiner disagrees with the Appellant's assertion that RAYSON et al fails to provide any motivation for its combination with HIGGINS and LAUER et al for rejecting claims 18-26, and 28-29.

In response to Appellant's argument that RAYSON et al is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In* re Oetiker, 977 F.2d 143, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, RAYSON et al discloses the ability to replace a predefined text or character string (for example, an alphabetic abbreviation), with bitmapped objects such as pictures or logos for at least the following two reasons; because "It would also be desirable to extend the automatic text replacement capability discussed above (see RAYSON et al, lines 54-58) to provide more versatility"; and secondly, "In one aspect of the invention, the replacement comprises a plurality of characters. However. However, The replacement can also comprise a graphic representation or virtually any object that can be displayed" (see RAYSON et al, lines 25-28). HIGGINS provides predefined identifiers for each company. The ability to replace a predefined text or character string with bitmapped objects such as pictures or logos is reasonably pertinent to Appellant's instant application.

Appellant's arguments for claims 32-36 are as follows:

III. The Examiner disagrees with the Appellant's assertion that HIGGINS fails to meet necessary criteria for anticipation of claims 32-33 and 35-36. Appellant interprets the HIGGINS reference as not describing the display of a financial instrument ticker, as a moving financial instrument ticker of

graphic symbols juxtaposed with corresponding values of the financial instruments across a video display. Higgins meets the aforementioned allegation at the following locations: column 4, lines 34-36, "The information presented at display 107 may comprise a single field of information, e.g., a quotation, a ticker flow or the like"; column 4, line 62 to column 5, line 5, wherein the ticker moves at a "... relatively slow speed..." and column 9, lines 18-37, wherein HIGGINS discloses "...either of the ticker streams 142 and 147 (see figure 4) being displayed".

Examiner disagrees with Appellant's assertion that HIGGINS fails to meet limitations of Claims 32-33 and 35-36, as the group of claim limitations is substantially similar, wherein, "graphic symbols" are associated with extracted instrument identifiers, Consider claim 32. HIGGINS discloses a method for displaying stock ticker information comprising: extracting from a data feed having values of financial instruments, instrument identifiers and the values of the financial instruments (abstract, lines 1-12, column 1, lines 33-45); accessing graphic symbols in accordance with the extracted instrument identifiers (figures 3-4, abstract, lines 1-12, column 1, lines 41-54; associating the graphic symbols with the corresponding values of the financial instruments to produce a financial instrument ticker (abstract, lines 1-12; and displaying the financial instrument ticker, as a moving financial instrument ticker of graphic symbols juxtaposed with corresponding by using the identifiers to associate the graphic symbols with the financial data (column 5, lines 6-36).

Consider claim 33. HIGGINS discloses the method of claim 32 wherein the data feed of values includes identifiers that correspond to the financial instruments (column 5, lines 6-36, and wherein accessing comprises: accessing the graphic symbols by using the identifiers to associate the graphic symbols with the financial data (column 5, lines 6-36).

Consider claim 35. HIGGINS discloses the method of claim 32 further comprising updating data on the financial instrument ticker in accordance with current market conditions (Column 5, lines 6-47).

Consider claim 36 A method for dynamically displaying graphic symbols and value information for financial instruments (see column 1, lines 13-16), the method comprising: receiving a feed

containing identifiers and corresponding values of the financial instruments (figure 1a, elements 28, 30, 30(l) to 30(n), and 35, and column 2, lies 42-57); extracting from the feed the identifiers and corresponding values of financial instruments (column 3, lines 14-18 and 60-65); extracting from the feed the identifiers and corresponding values of the financial instruments (column 3, lines 14-18 and 60-65); retrieving graphic symbols, (fonts are graphic symbols), associated with the extracted identifiers (figure 3, Abstract, lines 8-12, column 5, line 16 to column 7, line 28, and column 9, lines 25-29); forming a display signal including the retrieved graphic symbols and values corresponding to the financial instruments (Abstract, lines 1-4, figure 2b, element 107, figure 2 and figure 4, element 332); symbols and values corresponding to the financial instruments (figure 2, column 6, lines 1-15); and displaying on a monitor the graphic symbols, (fonts are graphic symbols - see figure 2, column 6, lines 1-15), juxtaposed with values corresponding to the financial instruments (figure 2, and column 9, lines 25-29).

Examiner also disagrees with Appellant's assertion that HIGGINS fails to display financial instrument ticker, as a moving financial instrument ticker of graphic symbols juxtaposed with corresponding value of the financial instruments across a video display" (see figure 1b, element 107-the display, figure 2, element 107), wherein, graphic symbols juxtaposed with financial instruments.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

ANTHONY J BLACKMAN

Examiner

Art Unit 2672

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August 26, 2002

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